

Notice of Allowability

Application No.

10/528,947

Applicant(s)

HENDRIKS, BERNARDUS
HENDRIKUS WILHELMUS

Examiner

Minerva Rivero

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/23/05.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Allowable Subject Matter

2. Claims 1-12 are allowed.
3. Regarding claims 1 and 11, Hendriks *et al.* (US 6,947,368) disclose an optical scanning device for scanning a first information layer by means of a first radiation beam in a first operating mode and a second information layer by means of a second radiation beam in a second operating mode, the device comprising:
 - a radiation source for emitting said first and second radiation beams consecutively or simultaneously (Col. 2, Lines 44-46)
 - an objective lens system for converging said first and second radiation beams on the positions of said first and second information layers, respectively (Col. 4, Line 6);
 - and
 - a phase structure arranged in the optical path of said first and second radiation beams, the structure having an optical axis and including a central part (P₁) and at least

Art Unit: 2627

one marginal part (P_2) for forming a non-periodic stepped profile in the radial direction, for introducing in said first operating mode a first wavefront modification $\Delta W_{2,1,1}$ and second wavefront modification $\Delta W_{2,2,1}$, respectively, and in said second operating mode a third wavefront modification $\Delta W_{2,1,2}$ and a fourth wavefront modification $\Delta W_{2,2,2}$, respectively, where the difference $(\Delta W_{2,1,2} + \Delta W_{2,2,2}) - (\Delta W_{2,1,1} + \Delta W_{2,2,1})$ is asymmetric in respect of said optical axis (19) (Col. 2, Lines 49-55, see Figs. 3 and 5-7).

However, no reference alone or in combination discloses the phase structure is characterized in that one (P_2) of said central and marginal parts (P_1 , P_2) is divided into at least a first angular segment ($AS_{2,1}$) and a second angular segment ($AS_{2,2}$) having a first step height ($h_{2,1}$) and a second different step height ($h_{2,2}$).

Therefore claims 1 and 11, and their dependent claims, 2-10 and 12, respectively, are allowed.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hendriks *et al.* (US 6,707,607) disclose an optical scanning device including a non-periodic phase structure.

Stallinga *et al.* (US 2003/0035356) disclose an optical wavefront modifier.

Art Unit: 2627

Hendriks (US 2003/0103270) discloses an optical scanning device for scanning first and second information layers.

Brenner (US 2004/0145809) discloses an element for the combined symmetrization and homogenization of a bundle of beams.

Hendriks *et al.* (US 2002/0105733) disclose an optical scanning device including a non-periodic phase structure being arranged to compensate for comatic aberration.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 10/13/06



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER